## ABSTRACT Phthalocyanines And Their Use In Ink-Jet Printers

## 5 A composition comprising:

(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:

$$MPc \underbrace{ \left( SO_3 H \right)_x}_{ \left( SO_2 NR^3 R^4 \right)_y}$$

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## Formula (1)

wherein:

М

is Cu or Ni;

Pc

represents a phthalocyanine nucleus of formula

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$$\beta \xrightarrow{\beta} \alpha \xrightarrow{N \xrightarrow{\alpha} N} \beta$$

$$N \xrightarrow{N \xrightarrow{\alpha} N} N \xrightarrow{\alpha} \beta$$

$$\beta \xrightarrow{\alpha} N \xrightarrow{\alpha} N \xrightarrow{\alpha} \beta$$

 $R^1$ ,  $R^2$  and  $R^3$  independently are H or optionally substituted  $C_{1\!-\!4}$ alkyl;

R<sup>4</sup> is optionally substituted C<sub>1-4</sub>-hydroxyalkyl;

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x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4;and

the substituents, represented by x, y and z, are attached to a  $\beta$  position on the phthalocyanine ring; and

- (b) a liquid medium which comprises water, water and an organic solvent or an organic solvent free from water.
- . Also novel dyes, ink-jet printing processes, printed images, printers and cartridges.